NORTH CAROLINA DIVISION OF AIR QUALITY

Application Review

Issue Date: TBD

Region: Mooresville Regional Office
County: Rowan
NC Facility ID: 8000182
Inspector's Name: Denise Hayes
Date of Last Inspection: 08/15/2019
Compliance Code: 3 / Compliance - inspection

Facility Data

Applicant (Facility's Name): Nouryon Surface Chemistry LLC - Salisbury Plant

Facility Address:
Nouryon Surface Chemistry LLC - Salisbury Plant
485 Cedar Springs Road
Salisbury, NC 28147

SIC: 2869 / Industrial Organic Chemicals,nec
NAICS: 325199 / All Other Basic Organic Chemical Manufacturing

Facility Classification: Before: Title V **After:** Title V
Fee Classification: Before: Title V **After:** Title V

Permit Applicability (this application only)

SIP: 02D: .0503, .0515, .0516, .0521, .0524, .0951, .0958, .1100, .1111, .1806, .2100
02Q: .0317, .0711
NSPS: Dc, IIII
NESHAP: ZZZZ, VVVVVV
PSD: n/a
PSD Avoidance: VOC, NOx
NC Toxics: 02D .1100, 02Q .0711
112(r): RMP required
Other: RACT, HAP-Major avoidance, MACT avoidance

Contact Data

Facility Contact	Authorized Contact	Technical Contact
Jerry McMurray HSE Manager (704) 431-6002 485 Cedar Springs Road Salisbury, NC 28147	William Teasdale Site Director (704) 431-6006 485 Cedar Springs Road Salisbury, NC 28147+9249	Jerry McMurray HSE Manager (704) 431-6002 485 Cedar Springs Road Salisbury, NC 28147

Application Data

Application Number: 8000182.20A & .17A
Date Received: 01/22/2020(.20A), 05/09/17(.17A)
Application Type: Renewal
Application Schedule: TV-Renewal

Existing Permit Data
Existing Permit Number: 09900/T15
Existing Permit Issue Date: 09/27/2019
Existing Permit Expiration Date: 10/31/2020

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2018	0.0700	18.96	82.26	10.16	0.3400	6.21	2.28 [Methyl methacrylate]
2017	0.0700	20.43	81.97	9.76	0.3300	4.39	2.03 [Methyl methacrylate]
2016	1.04	18.02	75.12	9.66	1.14	7.80	2.71 [Vinyl acetate]
2015	0.0600	16.60	76.41	8.62	1.04	7.59	2.48 [Vinyl acetate]
2014	0.0700	19.27	66.42	9.39	1.11	11.27	5.65 [Vinyl acetate]

Review Engineer: Russell Braswell

Review Engineer's Signature: **Date:**

Comments / Recommendations:
Issue 09900/T16
Permit Issue Date: TBD
Permit Expiration Date: TBD+5 years

1. Purpose of Application:

a. .20A

Nouryon Surface Chemistry LLC – Salisbury Plant ("NSC"; "the facility") operates a facility in Rowan County under Title V permit 09900T15 ("the existing permit"). The existing permit is set to expire on October 31, 2020. As required by General Condition K of the existing permit, NSC submitted this permit application in order to renew the Title V permit. NSC did not request any modification to the Title V permit as part of the renewal application.

Because this application for permit renewal was received at least six months before the expiration date, the existing permit will remain in effect, regardless of expiration date, until this permit application has been reviewed and a new permit is issued.

b. .17A

NSC[1] submitted this application to upgrade the capacity of an existing storage tank. Based on calculations submitted with the application, NSC expected a nominal decrease in emissions as a result of the upgrade. Therefore, NSC submitted an application for permit modification under 02Q .0523(a) (a.k.a. "502(b)(10) modification" or an "off-permit change"). DAQ confirmed that this application qualified as a 502(b)(10) modification on May 19, 2017.

This application has been consolidated into .20A.

2. Facility Description:

NSC manufactures several specialty chemical products including glue, resins, polymers, and monomers generally used in cosmetics.

Prior to 2008, the facility operated as National Starch and Chemical Company – Cedar Springs Plant ("National Starch"), under Facility ID No. 8000055. In April 2008, AkzoNobel SPG, LLC ("AkzoNobel") acquired some of the emission sources at the facility, and Indopco, Inc. dba Henkel ("Henkel") acquired everything else. The ID for National Starch was transferred to Henkel, and AkzoNobel was issued ID No. 8000182.

In 2019, ownership of this facility transferred from AkzoNobel to NSC.

3. Application Chronology:

- May 9, 2017 Application .17A received for an off-permit change as discussed above.
- January 22, 2020 Application .20A received for renewal of a Title V permit as discussed above.
- February 17, 2020 Applications transferred to Russell Braswell.
- February 24, 2020 Email sent regarding the natural gas-fired generator mentioned in the August 15, 2019 inspection report. NSC responded by email on February 28, 2020.

[1] At the time this application was submitted, this facility was operating under the name "AkzoNobel Surface Chemistry LLC".

- March 2, 2020 Email correspondence regarding the .17A application and acrylonitrile tank.
- March 12, 2020 An initial draft of the renewed Title V permit and associated application were sent to DAQ staff (Tom Anderson, Mark Cuilla, Samir Parekh, Bruce Ingle, Emily Supple) and NSC staff (Jerry McMurray, William Teasdale). See Attachment 2 for a summary of comments received on these initial drafts.
- April 9 - 17, 2020 Email correspondence with Jerry McMurray regarding the description of several condensers in the list of permitted emission sources.
- XXX Public notice
- XXX Permit issued.

4. Title V Permit Modifications Following the Previous Permit Renewal:

- November 17, 2015 Permit T14 issued. This action renewed the Title V permit. In addition, this action added several new sources via 502(b)(10) modifications and included a specific permit condition for 40 CFR Part 63, Subpart VVVVVV and avoidance of Subpart JJJJJJ.
- September 27, 2019 Permit T15 issued. This action changed the ownership of the permit (previously AkzoNobel Surface Chemistry LLC).

5. Changes to the Existing Title V Permit:

a. 502(b)(10) changes

The application proposes replacing an existing 10,000 gallon acrylonitrile storage tank with a 20,000 gallon one. Throughput would not increase as a result of the change. As a result of the increased tank volume, breathing losses from the tank would decrease. NSC submitted calculations based on USEPA's program TANKS 4.0.9d that showed a decrease of 51 pounds per year of acrylonitrile emitted. According to NSC, the tank is located in "Area III" of the facility.

The referenced acrylonitrile tank has never been included in NSC's Title V permit. It was likely overlooked when the Title V permit issued to National Starch was split into two separate permits (see Section 2 for details of this split). NSC has been reporting acrylonitrile emissions every year as part of the annual Emission Inventory. Additionally, NSC has always included the acrylonitrile tank in the risk management plan (see Section 6.k for details).

As requested by application .17A, the acrylonitrile storage tank will be added to the permit as:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Area III			
V22	acrylonitrile storage tank equipped with loading-vapor return and conservation vent (20,000 gallons maximum capacity)	N/A	N/A

As mentioned above, actual emissions from this tank have already been included in facility-wide emission totals. Because the new tank will result in a decrease of acrylonitrile emissions, no modeling demonstration will be required for 02D .1100, and no TPER review will be required for 02Q .0711.

b. Previously unpermitted emergency generator

Based on the most recent inspection report, NSC has a small emergency-use generator not included in the existing permit. Based on information received February 28, 2020, the generator:

a. Runs on natural gas;
b. Was constructed in 1978; and
c. Has a capacity of 12.5 kW.

Due to the age of the unit, it will not be subject to NSPS Subpart JJJJ. It will be subject to MACT Subpart ZZZZ; see Section 6.i.1 for details.

Given the age of the unit, no datasheet is available. The below calculations are based on the four-stroke rich-burn emission factors in AP-42 Chapter 3.2. Based on the potential emissions, this generator will qualify as an insignificant activity. It will be added to the list of insignificant activities as "I-EmGen".

Pollutant	Emission Factor (lb/MMBtu)	Potential Emissions (ton/yr)	Potential Emissions (lb/hr)
NOx	2.21E+00	0.12	0.47
CO	3.72E+00	0.20	
SO_2	5.88E-04	0.00	0.00
VOC	2.96E-02	0.00	
PM/PM10/PM2.5*	1.94E-02	0.00	0.00
High HAP**	0.00E+00	0.00	
Total HAP***	3.06E-02	0.00	

Assumptions and Conversions
500 hr/yr potential operation
20 % thermal to electrical efficiency
12.5 kW electrical capacity
3,412 Btu-hr/kW
2,000 lb/ton

Notes
* Sum of filterable and condensable per 15A NCAC 02D .2609(a).
** Historically, the highest HAP from this facility is methyl methacrylate or vinyl acetate. There are no emission factors for these pollutants for 4SRB natural gas-fired engines.
*** Sum of HAP emission factors from AP-42 Table 3.2-3.

c. Table of changes

The following table summarizes the changes made to Air Quality Permit 09900T15:

Insert list of changes from final draft

6. Regulatory Overview and Rules Review:

Under the existing permit, NSC is subject to the following State Implementation Plan ("SIP") rules:

- 15A NCAC 02D .0503 "Particulates from Fuel Burning Indirect Heat Exchangers"
- 15A NCAC 02D .0515 "Particulates from Miscellaneous Industrial Processes"

- 15A NCAC 02D .0516 "Sulfur Dioxide from Combustion Sources"
- 15A NCAC 02D .0521 "Control of Visible Emissions"
- 15A NCAC 02D .0524 "New Source Performance Standards"
  (40 CFR Part 60, Subparts Dc and IIII)
- 15A NCAC 02D .0951 "RACT for Sources of Volatile Organic Compounds"
- 15A NCAC 02D .0958 "Work Practices for Sources of Volatile Organic Compounds"
- 15A NCAC 02D .1100 "Control of Toxic Air Pollutants" [State enforceable only]
- 15A NCAC 02D .1111 "Maximum Achievable Control Technology"
  (40 CFR Part 63, Subparts ZZZZ and VVVVVV)
- 15A NCAC 02D .1806 "Control and Prohibition of Odorous Emissions" [State enforceable only]
- 15A NCAC 02D .2100 "Risk Management Program"
- 15A NCAC 02Q .0317 "Avoidance Conditions"
  (Avoidance of PSD/NSR, avoidance of MACT)
- 15A NCAC 02Q .0711 "Emission Rates Requiring a Permit" [State enforceable only]

NSC's requirements under each rule that applies to this facility are discussed below. NSC's applicability to various Federal programs (e.g. NSPS, MACT, PSD, 112(r), and CAM) is also discussed below.

a. 02D .0503 "Particulates from Fuel Burning Indirect Heat Exchangers"

This rule limits particulate matter ("PM") emissions from indirect heat exchangers with no other specific PM emission limits. This rule applies to each boiler at the facility.

The PM limit for this rule is a function of the total heat input of the sources subject to the rule. As the total heat input increases, the PM limit decreases; in general, newer sources have a lower PM limit for this rule.

Based on the existing permit, the PM limits for this rule are:

- B2, B3, B4, B5, B6, and ES-A3-B7: 0.34 pounds per million Btu.
- B8: 0.33 pounds per million Btu.

The only fuels burned at this facility are natural gas, No. 2 oil, and diesel. Based on the emission factors published in US EPA's publication AP-42, these fuels are expected to comply with 02D .0503 by default. Therefore, the permit does not require any monitoring, recordkeeping, or reporting to comply with this rule. MFC is expected to continue to comply with this rule.

b. 02D .0515 "Particulates from Miscellaneous Industrial Processes"

This rule limits PM emissions from emission sources that exhaust through a stack, vent, or outlet, and with no other specific PM emission limits. The following sources at this facility are subject to this rule: ES-A1-1, ES-A1-2, ES-A1-3, A3FD, A4SD, A4CAHS, LDF-3 and ES-FBPO.

In general, NSC complies with this rule by using fabric filter or liquid scrubbers to control PM emissions. In order to demonstrate compliance, NSC performs regular inspections, monitoring, and maintenance of the control devices. Records of inspections, monitoring, and maintenance must be kept and reported twice per year.

Based on the most recent inspection report, NSC appears to be in compliance with this rule. Continued compliance will be determined with subsequent inspections and reports.

c. 02D .0516 "Sulfur Dioxide Emissions from Combustion Sources"

This rule limits sulfur dioxide ("SO_2") from fuel burning sources with no other specific SO_2 emission limits. This rule applies to each fuel burning source at this facility.

The only fuels burned at this facility are natural gas, No. 2 oil, and diesel. Based on the emission factors published in US EPA's publication AP-42, these fuels are expected to comply with 02D .0516 by default. Therefore, the permit does not require any monitoring, recordkeeping, or reporting to comply with this rule. MFC is expected to continue to comply with this rule.

d. 02D .0521 "Control of Visible Emissions"

This rule limits visible emissions ("VE") from emission sources with no other specific VE emission limit. For sources constructed after 1971, the opacity limit is 20% over any six-minute period, with the following exceptions: (1) No six-minute period exceeds 87 percent opacity; (2) No more than one six-minute period exceeds 20 percent opacity in any hour; and (3) No more than four six-minute periods exceed 20 percent opacity in any 24-hour period. Each of the emission sources at this facility is subject to this rule.

In order to demonstrate compliance, NSC must perform monthly observations of each emission point. Records of the observations must be kept and reported twice per year.

Based on the most recent inspection report, NSC appears to be in compliance with this rule. Continued compliance will be determined with subsequent inspections and reports.

e. 02D .0524 "New Source Performance Standards" ("NSPS"; 40 CFR Part 60)

This rule incorporates the NSPS rules into North Carolina's SIP. There are two NSPS rules that apply to this facility: Subpart Dc and Subpart IIII.

1. Subpart Dc "Small Industrial-Commercial-Institutional Steam Generating Units"

Subpart Dc applies to all boilers constructed after 1989 with a heat input greater than 10 MMBtu/hr. The only subject boilers at this facility are ES-A3-2-B7 and B8. For the purposes of this rule, these boilers combust oil, were constructed after February 28, 2005, and have a heat input capacity less than 30 million Btu per hour.

Per §60.42c(d), oil burned in these boilers must have a sulfur content less than 0.5% by weight.

In order to demonstrate compliance, the facility must keep records of fuel sulfur content and monthly fuel usage. The facility must submit fuel sulfur content certifications twice per year.

Based on the most recent inspection report, NSC appears to be in compliance with this rule. Continued compliance will be determined with subsequent inspections and reports.

2. Subpart IIII "Stationary Compression Ignition Internal Combustion Engines"

This rule applies to stationary compression-ignition reciprocating engines constructed after April 1, 2006. Both diesel-fired emergency generators are subject to this rule. The natural gas-fired generator was constructed in 1978, and therefore is not subject to this rule.

In general, this rule requires that emergency-use engines:

a. Combust low-sulfur fuel;
b. Operate according to manufacturer specifications;
c. Operate during periods of emergency, maintenance, or as allowed by §60.4211(f); and
d. Install a non-resettable hour meter.

The facility must keep records of maintenance and the hours of operation of emergency and nonemergency use. All recordkeeping must be reported twice per year.

Based on the most recent inspection report, NSC is in compliance with this rule. Continued compliance will be determined during subsequent inspections.

f. 02D .0951 "RACT for Sources of Volatile Organic Compounds"

This rule applies to sources of VOC in areas designated as nonattainment or maintenance for ozone as specified in 02D .0902. This facility is located in Rowan County, which is one such area.

Sources subject to this rule must either comply with the applicable standards in Section 02D .0900, or determine an alternative reasonably available control technology ("RACT") as allowed by 02D .0951(c).

All of the VOC sources at this facility have undergone a RACT determination. A summary of the RACT requirements, including the date of the initial determination, are shown in the table below:

Source	RACT determination	Notes
"Firebird Process" (sources listed in Section 2.1 F of the Title V permit)	-Use condensers with an outlet temperature of 25 °C or less; -Regular maintenance of condensers; -Keep and report records of maintenance and temperature;	Initially determined in Title V permit 09900T05 (issued November 24, 2009).
All other sources of VOC	No additional controls.	Initially determined in Title V permit 09900T08 (issued August 10, 2010)

Based on the most recent inspection report, NSC appears to be in compliance with this rule. Continued compliance will be determined with subsequent inspections and reports.

g. 02D .0958 "Work Practices for Sources of Volatile Organic Compounds"

This rule applies to sources of VOC in current or former areas of ozone nonattainment as specified in 02D .0902. This facility is located in Rowan County, which is one such area.

Sources subject to this rule must handle VOC-containing material with good work practices. The specific work practices are included in 02D .0958(c) and (d).

In order to demonstrate compliance, NSC must perform monthly facility-wide inspections to verify that the work practice standards are being implemented. Records of the monthly inspections must be kept and reported twice per year.

Based on the most recent inspection report, NSC appears to be in compliance with this rule. Continued compliance will be determined with subsequent inspections and reports.

h. 02D .1100 "Control of Toxic Air Pollutants" [State enforceable only]

This rule requires the facility to emit toxic air pollutants ("TAPs") such that the acceptable ambient limits ("AALs") listed in 02D .1104 are not exceeded.

In order to demonstrate compliance with the AALs, NSC complies with the emission limits listed in the permit. These limits were determined by air dispersion modeling which was approved with the issuance of Title V permit 05279T45[2].

When the National Starch facility was split into AkzoNobel and Henkel, both facilities agreed to be considered an "industrial park" and "consider the other sources' emissions when expanding."[3] In doing so, AkzoNobel was allowed 1) to include Henkel's property boundary when determining compliance with the AALs, and 2) use the previous modeled emission limits in the new AkzoNobel permit. The name of the AkzoNobel facility was later changed to NSC. See Section 2 for details regarding the history of NSC, AkzoNobel, Henkel, and National Starch.

In order to demonstrate compliance with the modeled emission limits, NSC must operate the condensers and ammonia flare as shown in the list of permitted emission sources. NSC must maintain the condenser outlets below the specified maximum temperatures and continuously monitor the actual temperature. NSC must perform regular inspections and maintenance on the control devices and keep records of inspections, maintenance, and actual TAP emissions. NSC must submit a report of the recordkeeping activities four times per year.

The addition of the acrylonitrile storage tank V22 will not require new air dispersion modeling because it represents a decrease in annual acrylonitrile emissions. See Section 5.a for a discussion of addition of the acrylonitrile tank.

Based on the most recent inspection report, NSC appears to be in compliance with this rule. Continued compliance will be determined with subsequent inspections and reports.

i. 02D .1111 "Maximum Achievable Control Technology" ("MACT"; 40 CFR Part 63)

This rule incorporates the MACT rules into North Carolina's SIP. For the purposes of MACT applicability, this facility is considered an area source of hazardous air pollutants ("HAPs") because the facility has accepted a Federally-enforceable avoidance limit (see Section 6.l.2). By default, rules that apply to only major sources of HAPs (e.g. Subpart GGGGG) do not apply to this facility. Ultimately, there only two MACT rules that apply to the activities at this facility.

Note that MACT Subpart JJJJJJ does not apply to this facility because the facility has accepted a separate avoidance limit (see Section 6.l.3).

1. Subpart ZZZZ "Stationary Reciprocating Internal Combustion Engines"

This rule applies to all stationary engines. Both diesel-fired generators and the natural gas-fired generator are subject to this rule.

[2] See page 5 of the application review for Title V permit 05279T45, issued to Henkel on June 27, 2008.
[3] See page 16 of the application review for Title V permit 05279R49, issued to Henkel on October 7, 2008.

The requirements of this rule depend on several aspects of the individual engine. For the purposes of this rule, the diesel-fired engines at this facility are:

a. Located at an area source of HAPs;
b. Emergency use; and
c. Subject to NSPS Subpart IIII.

Per §63.6590(c)(1), these engines demonstrate compliance with Subpart ZZZZ by complying with the NSPS. There are no further requirements for these engines under this rule.

For the purposes of this rule, the natural gas-fired engine (I-EmGen) is:

a. Located at an area source of HAPs;
b. Emergency use; and
c. Existing.

Per §63.6603(a), this engine must comply with the work practices in Table 2d to the rule and keep records of maintenance activities. NSC must only operate this engine such that it meets the definition of "emergency stationary RICE" in the rule.

Because I-EmGen is an insignificant activity, no reference to this source will be included in the body of the Title V permit. Because this source is being added to the list of insignificant activities for the first time, compliance will be evaluated during the next inspection.

2. Subpart VVVVVV "Chemical Manufacturing Area Sources"

This rule applies to chemical manufacturing process units ("CMPUs") located at area sources of HAPs and that meet one or more of the criteria in §63.11494. One of the criteria is using a Table 1 HAP in any feedstock at a concentration of 0.1% or greater. Ethylene dichloride (a.k.a. dichloroethane or DCE) is included in Table 1 to the rule, and is used in emission sources labeled as "Area II" of the permit. Therefore, all of the Area II sources are subject to this rule. All of the Area II sources were constructed before October 6, 2008. Therefore, they are considered "existing' sources per §63.11494(d)(1).

Sources subject to this rule have many different options for compliance. In general, NSC has chosen the following compliance options:

a. Meet the management practices of §63.11495(a) as applicable;
b. Meet the requirements for heat exchanger systems under §63.104(a);
c. Good work practices for each source and control device;
d. Calculate and record organic HAP emissions from each subject source; and
e. Limit the concentration of Table 7 HAPs in wastewater, and discharge wastewater to onsite or offsite wastewater treatment and keep records identifying the type of treatment it receives

In order to demonstrate compliance, NSC must conduct routine inspections of each subject CMPU. Records of inspection, maintenance, and HAP emissions must be maintained and reported twice per year.

Based on the most recent inspection report, NSC appears to be in compliance with this rule. Continued compliance will be determined with subsequent inspections and reports.

j. 02D .1806 "Control and Prohibition of Odorous Emissions" [State enforceable only]

This rule requires that the facility not operate the facility in such a way that contributes to odor complaints outside of the facility's boundary.

This rule has no specific compliance requirements. Based on the most recent inspection report, MFC appears to be in compliance with this rule. Continued compliance will be determined during subsequent inspections.

k. 02D .2100 "Risk Management Program" (a.k.a. Section 112(r) of the Clean Air Act)

This rule applies to facilities that store materials above their respective thresholds in 40 CFR 68.115. NSC stores formaldehyde, sulfur trioxide, 1,2-dichloroethane, vinyl acetate, and acrylonitrile above their respective thresholds, so this rule applies to this facility.

Facilities subject to this rule must submit a risk management plan ("RMP") that meets the requirements of §68.150. The RMP must be updated and reviewed at least once every five years.

NSC submitted the latest revision to the RMP on June 13, 2019, which was within the five-year deadline. The next RMP will be due on June 13, 2024 at the latest. Changes at the facility may require a new RMP before that date.

The facility was inspected for compliance specifically with the RMP on June 25, 2019. NSC appeared to be in compliance with the RMP at that time.

In the existing permit, the RMP requirements are included under 02Q .0508(h). In the new permit, this has been corrected to 02D .2100.

l. 02Q .0317 "Avoidance Conditions"

NSC has accepted Federally-enforceable limits to avoid applicability of 02D .0530, .0531, and some portions of .1111 as allowed by 02Q .0317.

1. Avoidance of 02D .0530 and .0531:

In order to avoid a full review under 02D .0530 and .0531 (a.k.a. "PSD" and "NSR"), NSC has agreed to limit VOC and NOx emissions from several emission sources at the facility. A summary of the emission limits, their associated requirements, and when they were incorporated into the permit are shown in the table below:

Source	PSD/NSR Avoidance Limit (per year)	Requirements	Notes
Littleford drying system No. 2 (ID No. ES-A1-2)	40 tons of VOC	-Keep calculations of VOC emissions -Report twice per year	Initially included in Title V permit 05279T35 (issued December 31, 2003)[4].
Ammonia flare (ID No. MV2F)	40 tons of NOx	-Limit operation to 6,4000 hours per year -Calculate emissions using	Initially included in Title V permit 05279T47 (issued June 27, 2008)[5].

[4] This permit was issued to the National Starch facility. See Section 2 for details regarding NSC and National Starch.

Source	PSD/NSR Avoidance Limit (per year)	Requirements	Notes
		previous stack test data -Keep records of operation -Report twice per year	

The existing permit contains the following formula for calculating NOx emissions from the ammonia flare:

$$E = \frac{12.5 lb/hr * H}{2{,}000\ lb/ton}$$

The term "12.5 lb/hr" is an emission factor previously established through stack testing. This term will be replaced with "N_{NOx}" and the definition "N_{NOx}= NOx emission rate, determined to be 12.5 pounds/hour (stack test reference number 2009-065ST)." This change clarifies the origin and purpose of the 12.5 lb/hr emission factor. This change will not affect NSC's compliance with this rule.

Based on the most recent inspection report, NSC appears to be in compliance with this rule. Continued compliance will be determined with subsequent inspections and reports.

2. Avoidance of HAP-Major status:

In order to avoid being considered a major source of HAP (and thus avoid applicability of several rules under 40 CFR Part 63), NSC has agreed to limit facility-wide HAP emissions to 10 tons per year of any individual HAP and 25 tons per year of all HAPs combined.

In order to comply with the emission limit, NSC calculates facility-wide HAP emissions on a monthly basis. NSC must report HAP calculations twice per year.

Based on the most recent inspection report, MFC appears to be in compliance with this rule. Continued compliance will be determined with subsequent inspections and reports.

3. Avoidance of MACT Subpart JJJJJJ:

MACT Subpart JJJJJJ applies to boilers located at area sources of HAP that burn non-gas fuels. However, the rule makes an exception for boilers only burn non-gas fuels during periods of natural gas curtailment or maintenance (see the definition of a gas-fired boiler in §63.11237).

Several of the boilers at this facility have the capability to burn non-gas fuels, but NSC has agreed to only burn non-gas fuels during periods of natural gas curtailment or maintenance. Therefore, this rule will not apply to any boiler at the facility.

NSC must keep records of non-gas fuel use to show that the boilers still qualify as a "gas-fired boiler". NSC must submit a notification within 30 days of changing a boiler away from a gas-fired boiler.

[5] This permit was issued to the Henkel facility. See Section 2 for details regarding NSC and Henkel.

Based on the most recent inspection report, NSC appears to be in compliance with this rule. Continued compliance will be determined with subsequent inspections.

m. 02Q .0711 "Emission Rates Requiring a Permit" [State enforceable only]

In general, this rule requires facilities to emit TAPs at rates below the TAP permitting emission rates ("TPERs") listed in 02Q .0711(a). Facilities that emit TAPs at rates greater than TPERs included in the Title V permit must perform air dispersion modeling in order to demonstrate compliance with the AALs in 02D .1104 (see Section 6.h).

The permit lists TPERs for TAPs emitted from this facility. This list was determined in the T00 and T05 revisions of the Title V permit. No additional revision to the list of TPERs has been required since that time. See Section 5.a for a discussion of addition of the acrylonitrile tank.

In order to demonstrate compliance with this rule, NSC must keep records of TAP emissions such that compliance with the listed TPERs can be demonstrated.

Based on the most recent inspection report, NSC appears to be in compliance with this rule. Continued compliance will be determined with subsequent inspections.

n. Nonapplicable Rules:

Below is a summary of SIP and Federal rules that could potentially apply to this facility, but ultimately do not.

1. 02D .0530 "Prevention of Significant Deterioration" and 02D .0531 "New Source Review" ("PSD/NSR"; 40 CFR Parts 52 and 70)

These rules incorporate the requirements of PSD and NSR into North Carolina's SIP.

This facility is a chemical processing plant, which is one of the 28 listed source categories in §51.166(b)(1)(i)(a). Such facilities are considered a major source if (among other criteria) their potential emissions of VOC are greater than 100 tons per year.

Due to this facility's potential emissions of VOC and its previous association with the co-located Henkel US Operations Corporation (facility ID 8000055), this facility is considered a major source for PSD purposes. However, none of the emission sources at this facility have undergone a review for PSD or NSR. Therefore, this rule does not apply to this facility.

In addition, NSC is avoiding triggering additional requirements under PSD as allowed by 02Q .0317 (see Section 6.l.1).

2. 02D .0614 "Compliance Assurance Monitoring" ("CAM"; 40 CFR Part 64)

This rule incorporates the requirements of 40 CFR Part 64 into North Carolina's SIP. CAM applies to individual emission sources based on the following criteria:

a. The source is equipped with a control device,
b. The source being controlled is subject to a non-exempt emission standard (defined by 02D .0614(b)(1)),
c. The control device is being used to comply with the emission standard, and

d. The source being controlled has potential emissions of the pollutant subject to the emission standard greater than major source thresholds.

Each of the sources at this facility have previously been evaluated for CAM applicability:

Source	Subject to CAM?	Notes
"Firebird Process" (Section 2.1 F of the Title V permit)	No	Determined in the application review for Title V permit 09900T13 (issued November 17, 2015).
All other emission sources equipped with control devices	No	Determined in the application review for Title V permit 09900T05 (issued November 24, 2009).

There have been no substantial updates to emission sources equipped with control devices at this facility since the T13 permit was issued. Therefore, this rule does not apply to this facility.

7. Emissions Review

For a summary of actual emissions from this facility, see the table on the first page of this document. Note that this data already includes emissions from the storage tank V22. NSC has reported acrylonitrile emissions since the first annual Emission Inventory for CY2008. Therefore, the only increase in emissions comes from the natural gas-fired emergency generator, which has not previously been included in the facility-wide emission summaries. See Section 5.b for emission calculations for this generator.

8. Compliance Status:

a. This facility was most recently inspected by Denise Hayes on August 15, 2019. According to the inspection report, NSC appeared to be in compliance with the Title V permit at that time.

b. Since the previous Title V permit renewal, NSC has been issued one NOV. On March 14, 2019, DAQ notified NSC that the annual compliance certification was late. All issues were resolved on May 1, 2019.

9. Other Regulatory Concerns:

a. No application fee is required for Title V permit renewals or 502(b)(10) modifications.

b. No zoning determination is required for Title V permit renewals or 502(b)(10) modifications.

c. No Professional Engineer's seal is required for Title V permit renewals or 502(b)(10) modifications.

10. Public Notice and EPA Review

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Consistent with 15A NCAC 02Q .0525, the EPA will have a concurrent 45-day review period. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit shall be provided to EPA. Also, pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the

time notice is provided to the public under 02Q .0521 above. South Carolina is an affected State, and Forsyth and Mecklenburg Counties are affected local programs.

- The Public Notice and EPA Review periods began on XXX

11. Recommendations

Issue permit 09900T16.

Attachment 1 to Review of Applications 8000182.17A and .20A
Nouryon Surface Chemistry LLC – Salisbury Plant

Summary of Comments on Initial Draft of Permit 09900T16

- Mark Cuilla, by email on April 2, 2020:

    1. The email indicated typos in the draft permit and application review.

        Response: I have corrected the indicated issues.

    2. The draft permit describes the control device C900-X1 only as "condenser". Should there be additional information in the description?

        Response: After reviewing the list of permitted emission sources, there are several condensers that don't include any additional information in their descriptions. I asked the applicant if more information is available regarding these sources.

        In emails on April 13 and April 17, 2020, Jerry McMurray supplied the surface areas of the following condensers: C900-X1; LDF3-X1; LDF3-X2; CD-A3-2-X2-C-1; CD-A3-2-X2-CP-1; CD-A3-2-X2-CP-4; CD-A3-2-X2-CP-6; CD-A3-2-X3-DC5001; and CD-A3-2-X3-DC5003. I have included this information in the permit.

    3. The specific condition for 02D .1100 should include the date that the facility submitted the modeling demonstration and the date it was approved.

        Response: I have now included this information.

    4. The application review states in Section 1.b that a nominal decrease in emissions is expected, but the cover letter to the Title V permit indicates an increase in emissions. What is correct?

        Response: The increase in emissions comes from the natural gas-fired generator I-EmGen which had not been included in facility-wide emission totals. This is separate from the upgrade of the acrylonitrile tank allowed by the .17A application.

- Jerry McMurray, by email on April 13 and April 17, 2020:

    1. The emails included the surface areas of several condensers that were not previously included in the permit.

        Response: I have included this information in the permit.

    2. Formaldehyde is no longer part of NSC's RMP. The permit should be changed to reflect this.

        Response: I have removed references to formaldehyde with regards to 02D .2100 and the RMP from the permit.